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Cooperative
ECONOMIC INSECT REPORT

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AGRICULTURAL RESEARCH SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE

AGRICULTURAL RESEARCH SERVICE

PLANT PEST CONTROL BRANCH

ECONOMIC INSECT SURVEY SECTION

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Branch serves as a clearing house and does not assume responsibility for accuracy of the material.

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Economic Insect Survey Section
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Volume 5 April 1, 1955 No. 13

COOPERATIVE ECONOMIC INSECT REPORT

Highlights of Insect Conditions

GREENBUG infestations continue in the Texas Panhandle but mostly light. Light infestations reported from Louisiana and Florida but none found in several Kansas counties. (pages 265).

ARMYWORM larvae appearing in Louisiana and South Carolina. (page 265). Moths active in several states. (page 277).

YELLOW CLOVER APHID infestations continue in areas of Arizona, Texas and Oklahoma. Economic populations almost to Kansas border in Oklahoma. (pages 267, 279).

VEGETABLE WEEVIL active in Florida, Mississippi, Georgia and South Carolina. (page 270).

PEA MOTH recorded from Oregon. (page 271).

Status of SWEETPOTATO WEEVIL in the United States. (page 272).

Summary of FOREST PEST problems in New York-1954-55. (page 274).

BOLL WEEVIL survival counts in North Carolina low. (page 273).

LIGHT TRAP collections. (pages 277, 278).

Some of the more IMPORTANT INSECT PESTS of 1954. (after p. 279).

Summary of INSECT CONDITIONS-1954-in Kansas. (page 281).

First REPORTED RECORDS for the season . (page 273).

ADDITIONAL NOTES. (page 278).

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Reports in this issue are for the week ending March 25, 1955, unless otherwise designated.

WEATHER FOR THE WEEK ENDING MARCH 28, 1955

Icy Arctic air surged southward into the Gulf of Mexico at the beginning and again at the end of the week, bringing record low temperatures for this late in the season to most stations in the South and Mid-West. The onrush of cold air was accompanied by blizzards, tornadoes, floods, ice jammed rivers, dust storms and gale force winds. The push of cold air at the beginning of the period was continuation of the one reported at the end of the previous week. This was accompanied by high winds throughout the country east of the Rockies. The high winds brought blizzard conditions to the Plains States as far south as Eastern Oklahoma on the 22nd. Although the snowfall was not extremely heavy, many roads were blocked due to drifting. In the dry region of the lower Western Plains, the winds caused further loss of soil. The storm reached the East Coast on the 22nd bringing gale force winds to the Northeast from eastern Indiana and Wisconsin, through southern Michigan, Ohio, and Pennsylvania to New York and New Jersey. Further South heavy rains associated with this system brought floods to Western Kentucky, Tennessee and northern Mississippi and northern Alabama where streams were already swollen from the previous week's heavy rains. Freezing temperature were reported as far south as Austin, Texas on the 22nd and light frost occurred in northern Florida on the 23rd.

Moderation following this outbreak was short lived, as another frigid blast was unleashed through the Northern Rocky Mountain States on the 24th. By the 27th, the cold air mass had reached the Gulf Coast and the Eastern Seaboard leaving a wake of broken temperature records in its path. New Orlean's temperature of 30° on the 27th was the coldest experienced in that city since February 1951. It was also the latest spring freeze there since 1894 and lowest temperature so late in the season for 82 years of record. Helena, Mont. recorded a temperature of -30° on the 25th, which was not only a record for so late in the season, but was also the coldest of record for the entire month of March. Other broken records included 0 at Omaha, Nebr., and 10° at Indianapolis, Ind. on the 26th; -15° at International Falls, Minn. and 20° at Raleigh, N. C. on the 27th; and 35° at Laredo, Texas on the 28th. Cold air spilling over the mountains into the Great Basin also established a new record of 19° for Salt Lake City, Utah on the 26th. Blizzard conditions returned to the Plains States as far south as central Kansas and northwestern Missouri on the 25th. Snowfall continued eastward on the 26th and 27th through the Lake Regions and as far south as the Ohio River Valley. Again the total snowfall was not heavy, but it served as a protective cover for crops during the low temperatures that followed. (Weather continued on page 279).

CEREAL AND FORAGE INSECTS

GREENBUG (*Toxoptera graminum*) - TEXAS - Twenty-seven counties surveyed from Anson and Vernon northwest through the panhandle March 11 to 19. Greenbugs found in only 17 panhandle counties, but populations were light except in 5 counties. Extremely heavily infested spots in Briscoe, Swisher, Deaf Smith, Castro and Parmer Counties. One irrigated field in Swisher County had as high as 2 to 3 thousand greenbugs per linear foot of row. Several fields in Deaf Smith and Castro Counties had populations of 100-300 per foot of row. High populations mostly in irrigated fields since dryland wheat suffering from lack of moisture. Highest populations in non-grazed fields. (Daniels, Davis, Ashdown, Cleveland). KANSAS - None found in any of wheat and barley fields examined in following counties: Riley, Clay, Washington, Republic, Cloud, Mitchell, Lincoln, Ottawa, Dickinson and Geary, March 18. (Matthew). LOUISIANA - Light infestation in 7 fields of oats in Tangipahoa, St. Landry, Avoyelles and East Baton Rouge Parishes. (Oliver, March 18).

CORN LEAF APHID (*Rhopalosiphum maidis*) - TEXAS - Medium to heavy widespread infestation on barley in Smith County. Stunting plants. (Browning). Medium to heavy widespread infestation on barley in Kaufman County. (Randolph).

ARMY CUTWORM (*Chorizagrotis auxiliaris*) - KANSAS - Few in the wheat, barley and alfalfa fields examined in north central counties. Highest infestations gave counts of only one larva per 6 feet of drill row, March 18. (Matthew).

ARMYWORM (*Pseudaletia unipuncta*) - LOUISIANA - Occasional larvae found in oat fields in Tangipahoa, Avoyelles, St. Landry and Rapides Parishes. (Oliver, March 18). SOUTH CAROLINA - Light infestation on oats in Beaufort County. First report of damage this season. (Nettles).

BROWN WHEAT MITE (*Petrobia latens*) - TEXAS - Medium to heavy widespread infestation on wheat in Swisher, Castro, Hansford, and Sherman Counties. (Davis, Daniels).

YELLOW-STRIPED ARMYWORM (*Prodenia ornithogalli*) - TEXAS - Light local infestation on oats and vetch in Kaufman County. (Randolph).

YELLOW SUGARCANE APHID and GREENBUG - FLORIDA - Increasing on Pangola grass pastures at Belle Glade, but not yet in injurious proportions. (Genung).

Small Grain Pest 1 / Conditions in Texas, Oklahoma, and Kansas January 7 to March 18, 1955

Summary of Conditions: Light infestations of GREENBUG were found throughout most of the central and southern Great Plains area during January 7 to March 18, 1955. Populations were extremely low in Kansas, western Oklahoma, and central and south Texas. A few spotted infestations occurred in north central Texas, especially in counties north of Dallas and Fort Worth. Populations were also extremely low in most counties of the Texas Panhandle, except for areas in Swisher, Deaf Smith, Donley, Moore, Randall, Briscoe, Castro, and Parmer. The highest populations were in Swisher, Deaf Smith, Castro, and Randall Counties where several fields with populations of 100 to 300 greenbugs per linear foot were observed. Infestations were particularly heavy in a few irrigated fields in Swisher County, and some control measures by airplane have been taken. Natural enemies have not been plentiful except in north-central Texas where the parasite Aphidius testaceipes was quite abundant. No widespread outbreak of the greenbug is indicated with control being limited to rather localized areas.

BROWN WHEAT MITE populations were quite low in most of the area with heaviest concentrations occurring in continuously planted fields. The highest populations were found in Beaver County, Oklahoma, where five fields averaged 225 mites per linear foot. Other areas having moderately heavy populations were Texas, Woodward, and Dewey Counties, Oklahoma; Hansford, Sherman, Swisher, and Castro Counties, Texas Panhandle; and several counties in north-central Texas. The heaviest populations of mites were in fields suffering badly by drought where control measures would probably not be justified. Some locally damaging infestations of this mite may develop during the next few weeks in the Oklahoma and Texas Panhandles and in north-central Texas. Because of the small size of the wheat, populations in the southwestern corner of Oklahoma might cause some damage.

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1 / Except hessian fly and eriophyid mites.

The WINTER GRAIN MITE was the most serious pest of small grains in the Texas areas lying south of the panhandle. The most seriously affected fields were in the Dallas-Fort Worth, Waco, and Kendall-Kerr areas. Damage by this mite was apparently the worst observed since 1951. A large area was sprayed and good results achieved.

CUTWORM populations were distributed over the area, but were very low in most instances. Rarely was more than one cutworm per square foot found, except in border areas adjacent to grass pastures. In Lubbock County, Texas, populations up to 5 cutworms per foot were observed. CORN LEAF APHIDS were not found overwintering in Kansas or western Oklahoma. Heavy populations occurred in some barley fields in Bryan County, Oklahoma, and in north-central Texas. Very few ENGLISH GRAIN or APPLE GRAIN APHIDS have been found or reported during the period covered in this report. (Small Gr. Ins. Reg. Cooperators).

LESSER MIGRATORY GRASSHOPPER (Melanoplus mexicanus) - ARIZONA - Nymphs found at less than 0.1 per square yard at Tempe March 15-17. Beginning of hatching (March 10-15) latest in 20 years-2 weeks later than normal and 3 weeks later than 1954. (Ariz. Coop. Rept.).

A SPIDER MITE (Tetranychina apicalis) - LOUISIANA - Light on clover in two fields in Tangipahoa Parish. On lawns in several locations. Heavy infestation of white clover in St. Landry Parish. (Oliver, March 18). FLORIDA - Averaging 1,000 to 5,000 eggs and 100 to 500 adults per plant on lupine at one location in Alachua County. (Robinson).

CLOVER MITE (Bryobia praetiosa) - MISSISSIPPI - Damage to wild vetch in Adams County, crimson clover in Jackson County and white clover in Jones County. (Hutchins, Pepper). ARIZONA - Severe on 20 acres of wheat on Yuma Mesa March 17. Fields previously in alfalfa. First time this damage seen. (Ariz. Coop. Rept.).

YELLOW CLOVER APHID (Myzocallis trifolii) - TEXAS - Medium to heavy widespread infestation on alfalfa and clovers in Denton, Grayson, Collin and Fannin Counties. Killing clover and alfalfa in some places. (Garner, Chada, Spence). ARIZONA - Light to very heavy on 1,000 acres of alfalfa in Yuma area March 22, winged forms increasing. Predators not keeping up with increase. General and increasing in all fields not treated in Graham County, several fields destroyed. (Ariz. Coop. Rept.).

TARNISHED PLANT BUG (Lygus lineolaris) - LOUISIANA - Average about 22 per 200 sweeps of 12-inch net on white clover and California burclover in East Baton Rouge Parish. (Oliver, March 18).

POTATO LEAFHOPPER (Empoasca fabae) - LOUISIANA - Two E. fabae males taken in 200 sweeps of 12-inch net in white clover and California burclover at Baton Rouge February 23. Two E. fabae (males) also taken in 200 sweeps in sweetclover at Morganza February 24 and one male in 200 sweeps in this area March 2. Sweepings at Baton Rouge March 1, 7 and 16 yielded no E. fabae males. (Oliver).

PEA LEAF WEEVIL (Sitona lineata) - OREGON - Adults active week of March 13 in Hillsboro area. Some ragging of leaves noted in red clover fields. (Prescott).

CLOVER ROOT CURCULIO (Sitona hispidula) - DELAWARE - Adults observed at most locations. (Late News). MARYLAND - Light numbers adults in alfalfa in Montgomery County. (U. Md., Ent. Dept.).

ALFALFA WEEVIL (Hypera postica) - MARYLAND - Adults showing some activity in alfalfa in Montgomery County. Mating observed. (U. Md., Ent. Dept.). DELAWARE - Very active in alfalfa and clovers. (Late News). PENNSYLVANIA - Small larvae, 1/8 inch, in buds of alfalfa in Lancaster County. (Pepper).

CLOVER LEAF WEEVIL (Hypera punctata) - LOUISIANA - Light infestation on clovers in Tangipahoa Parish. Heavy infestation averaging 70 per square foot in Webster Parish and 72 per square foot in East Baton Rouge Parish. (Oliver). DELAWARE - All larval stages present generally on red clover. (Late News). MARYLAND - Light numbers larvae in alfalfa in Montgomery County. (U. Md., Ent. Dept.). PENNSYLVANIA - Larvae abundant, 1/4 to 1/2 inch, in clover in Lancaster County. (Pepper).

PEA APHID (Macrosiphum pisi) - DELAWARE - Scarce in alfalfa. (Late News). MARYLAND - Light numbers in alfalfa in Montgomery County. (U. Md., Ent. Dept.).

LEATHER JACKETS - MISSISSIPPI - Specimens of Tipula sp. from Pontotoc County where they reportedly destroyed lespedeza last year. (Hutchins). TENNESSEE - Unidentified species damaging two pasture fields in Greene County. (Cunningham).

GREEN CLOVERWORM (*Plathypena scabra*) - LOUISIANA - Light, about 22 per 100 sweeps of 12-inch net in five fields of clover in Tangipahoa Parish. (Oliver, March 18).

VARIEGATED CUTWORM (*Peridroma margaritosa*) - TEXAS - Heavy local infestation on oats and alfalfa in Bastrop County. (Cook). Medium local infestation on oats and vetch in Kaufman County. (Randolph).

CLAYBACKED CUTWORM (*Agrotis gladiaria*) - LOUISIANA - Seven per square foot in white clover in Webster Parish. (Oliver, March 18).

BRISTLY CUTWORM (*Lacinipolia renigera*) - DELAWARE - Prevalent in alfalfa from Newark to Smyrna. (Late News).

BEAN LEAF BEETLE (*Cerotoma trifurcata*) - ARKANSAS - Examination of ground trash samples in Crittenden County showed average of 10,948 adults per acre of ground trash. (Warren).

JUNE BEETLES (*Phyllophaga* spp.) - LOUISIANA - Heavy flights at Baton Rouge; 438 caught night of March 16 in black light trap. Mainly *P. calceata* and *P. micans*. (Oliver, Mar. 18).

GREEN JUNE BEETLE (*Cotinis nitida*) - VIRGINIA - Larvae very active in re-seeded pasture in Greensville County. (Rogers). Very active in lawns in Princess Anne and Norfolk Counties. (Hofmaster). Also damaging pastures in Surry County. (Rawl). Indications are that green June beetle larvae will cause severe damage to pastures this year in Virginia. (Morris, March 18).

FRUIT INSECTS

APPLE APHID (*Aphis pomi*) - PENNSYLVANIA - Hatching on apple, March 22, Lancaster County. (Pepper).

APPLE GRAIN APHID (*Rhopalosiphum fitchii*) - PENNSYLVANIA - Hatching on apple, March 22, in Lancaster County. (Pepper).

BLACK CHERRY APHID (*Myzus cerasi*) - OREGON - Newly-hatched nymphs noted in Willamette Valley since March 7 although cherry buds have not opened yet. (Jones).

CATFACING INSECTS - INDIANA - One tarnished plant bug found in five trees jarred March 21 at Vincennes. (Lamansky).

EASTERN TENT CATERPILLAR (*Malacosoma americanum*) - PENNSYLVANIA - Egg masses quite numerous on peach twigs in Carbon County. (Menusan).

EUROPEAN RED MITE (*Metatetranychus ulmi*) - MARYLAND - Eggs numerous on apple twigs, Montgomery County. (U. Md., Ent. Dept.).

PEACH SILVER MITE (*Vasates cornutus*) - OREGON - Active and present in large numbers on peach at Hood River. (Ritcher).

PEAR LEAF BLISTER MITE (*Eriophyes pyri*) - OREGON - Actively laying eggs under bark scales on pear at Hood River. (Ritcher).

PEAR THRIPS (*Taeniothrips inconsequens*) - OREGON - First of the season noted March 21 in Linn County. (Jones).

PLUM CURCULIO (*Conotrachelus nenuphar*) - ARKANSAS - Dry weather and control efforts combined have reduced curculio numbers to a very low level. (Warren). GEORGIA - Four fully developed eggs found in a female curculio taken from a peach tree in a commercial orchard at Fort Valley March 15. Adults had reached center of orchards by March 14. (Snapp).

ORANGE DOG (*Papilio cresphontes*) - FLORIDA - Eggs and larvae on new growth of citrus at Gainesville. (Hetrick).

MEXICAN FRUIT FLY (*Anastrepha ludens*) - TEXAS - Total of 13 *A. ludens* trapped over entire Rio Grande Valley area this season. This is considerably less than for the same period last year. (Mex. Fruit Fly Cont. Proj., March 1-15).

CITRUS WHITEFLY (*Dialeurodes citri*) - FLORIDA - Adults very heavy on new growth of citrus and ornamentals at Gainesville. (Hetrick).

TRUCK CROP INSECTS

VEGETABLE WEEVIL (*Listroderes costirostris obliquus*) - SOUTH CAROLINA - Larvae abundant and causing light to moderate injury in many plantings of turnips, mustard and spinach, in the Charleston area. (Cuthbert). GEORGIA - Nearly all tobacco beds in southern area showing damage from larval feeding, March 14. (Morgan). FLORIDA - Averaging

3 to 8 adults per Irish potato plant in a one-acre garden in Gadsden County. Control used. (May). Averaged 40 larvae per square foot of turnips and also found in soil in northwest part of Walton County. (Dickinson). First adult from tobacco in the Hastings area, March 4. (Dobrovsky). MISSISSIPPI - Much damage to truck crops in Jones County. (Pepper).

APHIDS - SOUTH CAROLINA - Cabbage infested in Barnwell County. Foliage moderately infested on about 8 acres, March 13. (Watts).

CABBAGE APHID (*Brevicoryne brassicae*) - VIRGINIA - Heavy on cole crops in southeastern truck area. (Hofmaster, March 18). SOUTH CAROLINA - Heavy to light infestations on cabbage in the Charleston area, control used on most plantings. Natural controls increasing and by March 23 apparently checking populations. (Cuthbert).

CABBAGE CATERPILLARS - SOUTH CAROLINA - Light but increasing infestations of imported cabbageworms and diamondback moth larvae in many untreated cabbage plantings, in Charleston area, March 23. (Cuthbert).

TARNISHED PLANT BUG (*Lygus lineolaris*) - VIRGINIA - One adult on kale in a field of southeastern truck crop area. (Hofmaster).

SEED-CORN MAGGOT (*Hylemya cilicrura*) - VIRGINIA - Adults on kale and spinach in southeastern truck crop area. (Morris).

TURNIP APHID (*Rhopalosiphum pseudobrassicae*) - SOUTH CAROLINA - Populations continue high on mustard and turnips and light to moderate on young cabbage in the Charleston area. One 10-acre planting of rape seriously damaged, parasites very active in this planting. (Cuthbert).

PEA MOTH (*Laspeyresia nigricana*) - OREGON - First record for Oregon. Apparently this species will not become a pest in the State since the record is based on larvae taken in Clatsop County in 1947 but was determined only recently. (Det. H. W. Capps). (Stephenson).

MEXICAN BEAN BEETLE (*Epilachna varivestis*) - FLORIDA - Adults on pole beans in Gadsden County. Collected March 17 for the first time this season. (May).

GREEN PEACH APHID (*Myzus persicae*) - VIRGINIA - Infestations range from light to heavy on spinach crops in the southeastern truck crop area, March 18. (Hofmaster). SOUTH CAROLINA - Continues problem on spinach in Charleston area, also infesting potatoes as soon as plants come up. Increasing on potatoes but still light by March 23. (Cuthbert). GEORGIA - Light but very general infestations in tobacco plant beds, March 14. (Morgan).

COLORADO POTATO BEETLE (*Leptinotarsa decemlineata*) - SOUTH CAROLINA - First adult observed on potatoes in the Charleston area, March 15. (Cuthbert). FLORIDA - Adult stage on potatoes in Gadsden County. Collected March 17 and was the first for the season. (May).

A WIREWORM (*Conoderus vagus*) - FLORIDA - Larvae, pupae and adults from Irish potatoes in St. Johns County. First adult of season collected March 21. (Dobrovsky).

ONION MAGGOT (*Hylemya antiqua*) - SOUTH CAROLINA - Sent in sample of multiplying onions with numerous maggots. (Nettles).

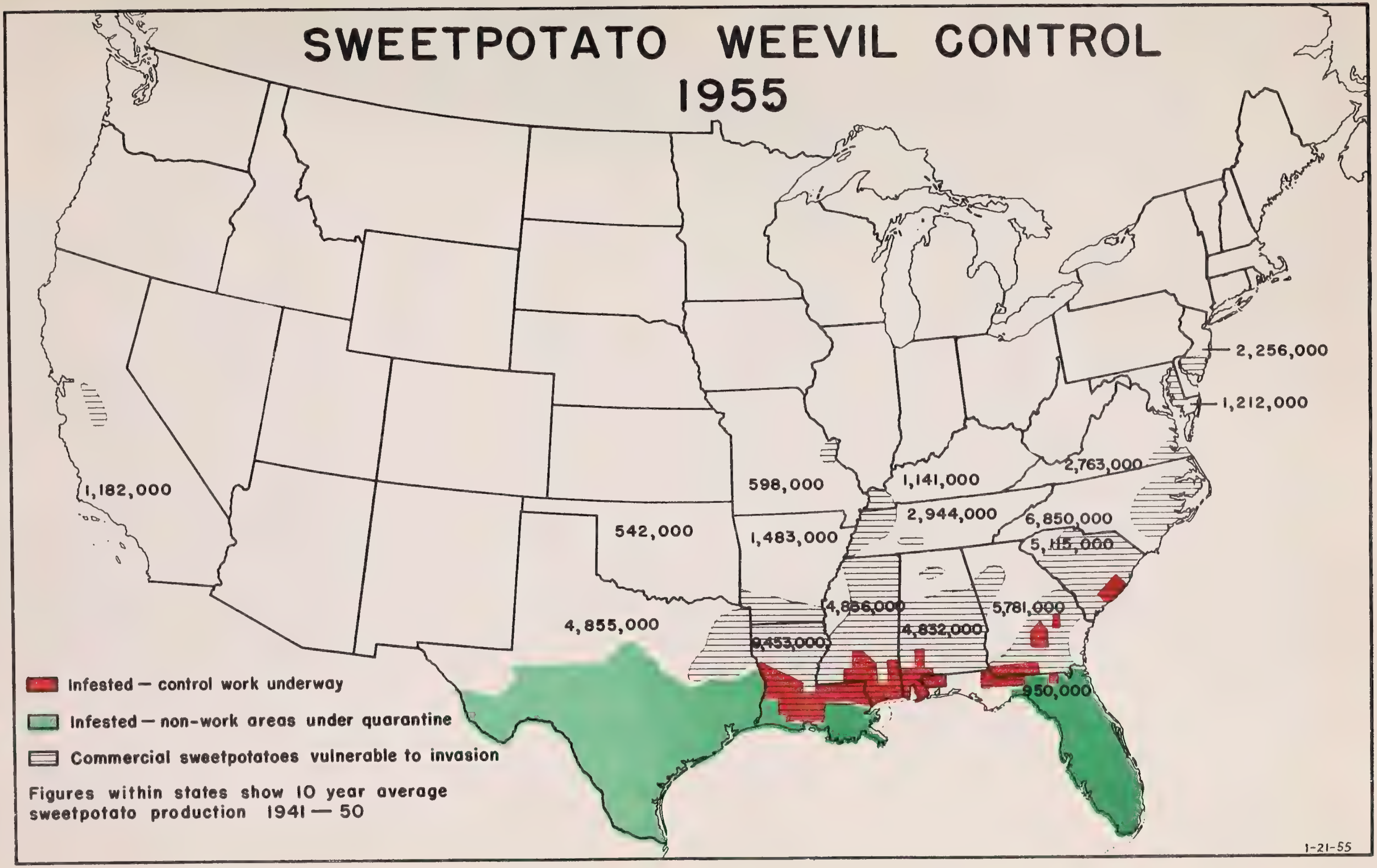
WINTER GRAIN MITE (*Penthaleus major*) - TEXAS - Medium to heavy local infestation on onions in Washington County. (Stuffleberne).

CUTWORMS - SOUTH CAROLINA - Slight injury to beets in Charleston area; some injury to older beets being harvested, March 30. (Cuthbert). MISSISSIPPI - Probably *Agrotis gladiaria*, damaged onions in a garden in Oktibbeha County. Other species of cutworms damaged young corn plants in Jones County. (Hutchins, Pepper).

AN APHID (*Capitophorus* sp.) - VIRGINIA - Very light on strawberry plants in southeastern truck crop area. Species of this genus capable of transmitting strawberry virus. Peak of abundance apparently passed as aphids hard to find, March 18. (Hofmaster).

SWEETPOTATO WEEVIL (*Cylas formicarius elegantulus*) - Although the origin of this pest is unknown, it is assumed to be the Orient. It is thought that it was brought into the United States from the West Indies prior to 1875. Aside from sweetpotato, it feeds on such closely related plants as goat's-foot morning glory, wild moonvine and other plants of the morning-glory family. Adults feed on the leaves, vines and roots while larvae attack stems, roots and potatoes. The map on the opposite page shows the distribution of the insect and average number of bushels of sweetpotatoes produced by states.

SWEETPOTATO WEEVIL CONTROL
1955



🟥 Infested — control work underway

🟩 Infested — non-work areas under quarantine

▤ Commercial sweetpotatoes vulnerable to invasion

Figures within states show 10 year average sweetpotato production 1941 — 50

1-21-55

U. S. DEPARTMENT OF AGRICULTURE

COTTON INSECTS

Boll Weevil Survival Counts in North Carolina:

Surface trash from 5 farms in each of 9 counties was examined March 8-24 for surviving boll weevils. The examinations showed live weevils to be present at rates ranging from 0-1453 per acre and averaging 236 per acre for all samples. The 1954 fall average for North Carolina was 1334 weevils per acre; therefore, the percent survival for the past winter was 17.6 percent. The samples were taken from the same sites as those used in the hibernation counts of the fall of 1954.

Although fall counts for this State prior to 1954 are not available, spring records have been taken. The 236 per acre average for 9 farms compares with an average of 1820 per acre on 5 farms for the spring of 1954 and an average of 3920 surviving weevils per acre on 6 farms in the spring of 1953. (Cotton Ins. Sect. and N. C. Dept. Ent.).

INSECTS AFFECTING OTHER FIBER PLANTS

CORN EARWORM (Heliothis armigera) - TEXAS - Light local infestation on flax in Hidalgo County. Larvae from first instar to full-grown on seed pods. (Wene, Marsh).

First Reported Records of Season (by areas):

Larvae of ARMYWORM in South Carolina, LESSER MIGRATORY GRASSHOPPER hatching March 10-15, in Arizona, ALFALFA WEEVIL larvae March 22 in Pennsylvania. APPLE APHID and APPLE GRAIN APHID hatching March 22 in Pennsylvania, PEAR THRIPS noted March 21 in Oregon. MEXICAN BEAN BEETLE adults March 17 in Florida, COLORADO POTATO BEETLE adults March 17 in Florida and March 15 in South Carolina. HORN FLY in Oklahoma, in South Carolina, March 14.

FOREST, ORNAMENTAL AND SHADE TREE INSECTS

Summary of Current Forest Pest Problems for New York -1954-55

Compiled by Comm. on Ins. and Dis., Soc.
of American Foresters, N. Y. Section.

EUROPEAN PINE SHOOT MOTH (Rhyacionia buoliana) in on increase. Causing extensive damage in southern area, especially in reforestation areas. Large numbers of GYPSY MOTH (Porthetria dispar) egg masses found in parts of Rensselaer, Washington, Essex, Warren and Columbia Counties. FOREST TENT CATERPILLAR (Malacosoma disstria) situation easing in older infested areas since natural controls always bring pests to low ebb of cycle. MATSUCOCCUS SCALE is serious pest of red pine and becoming worse in infested areas. At present in New York only in Long Island and Westchester County area. BEECH SCALE (Cryptococcus fagi) abundant in Catskill and southeast region and is spreading slowly. FIR BARK LOUSE or BALSAM WOOLLY APHID - Surveys show little spread into new areas, or increase in infested areas. SADDLED PROMINENT (Heterocampa guttivitta) has caused destruction in Rensselaer County and on Massachusetts border in birch, beech and maple woodlands. Infested areas have been sprayed. PINE SAWFLIES have increased during the past year in St. Lawrence County. Three-hundred acres have been sprayed. Neodiprion nanulus, N. sertifer, and N. lecontei principal species involved. SPITTLEBUG is still a problem on Scotch pine, but has not caused extensive damage in the past year. SPRUCE BUDWORM (Choristoneura fumiferana) has decreased considerably during the years and there is now little evidence of it in the State. SATIN MOTH (Stilpnotia salicis) has been building up in the eastern part of the State, especially near Saratoga, Little Falls and St. Johnsville. In most cases infestations have been treated with good results.

LINDEN LOOPER (Erannis tiliaria) caused heavy defoliation in hardwood growth in Chautauqua and Cattaraugus Counties. BIRCH LEAF MINER (Fenusa pusilla) heavily attacked gray and white birches in central areas. PINE NEEDLE APHIDS caused needle damage in the spring to white pine, especially where trees were close to the alternate host, red spruce. MOSQUITOES and BLACK FLIES were abundant throughout most of the rural areas and about 4500 acres of State-owned, special-use forest lands were treated. PARASITIC FLIES (especially sarcophagids) were unusually abundant in areas where tent caterpillar infestations were on decrease. The unusual abundance of the flies caused complaints from the public in those areas.

FOREST TENT CATERPILLAR (*Malacosoma disstria*) - MISSISSIPPI - Many appearing in Jones County. (Pepper).

A HOLLY LEAF MINER - MARYLAND - Larvae pupating in mines. Infestation quite general in central area. (U. Md., Ent. Dept.).

BOXELDER LEAF MINERS - TENNESSEE - Becoming active in eastern area. (Cunningham).

MAGNOLIA SCALE (*Neolecanium cornuparvum*) - PENNSYLVANIA - Heavy infestation on magnolia in Venango County, March 17. (Adams). FLORIDA - Increasing on magnolia at Gainesville. (Hetrick).

AZALEA LEAF MINER (*Gracilaria azaleella*) - PENNSYLVANIA - Pupal stage abundant in azalea in cold frame in Montgomery County, March 18. (Menusan).

A SCALE (*Lecaniodiaspis* sp.) - VIRGINIA - Heavy infestation found on Japanese barberry in Pulaski County. Det. H. Morrison. (Amos, Feb. 18).

BULB MITE (*Rhizoglyphus echinopus*) - VIRGINIA - Caused death of all jonquil bulbs in 100-square foot setting in Southampton County. (Miller, Davich).

A STRAWBERRY ROOT WEEVIL (*Brachyrhinus rugosostriatus*) - PENNSYLVANIA - Ruined roots of tuberous begonia in storage in Lackawanna County. Det. W. H. Anderson. (Gesell).

JAPANESE BEETLE (*Popillia japonica*) - VIRGINIA - Populations expected to be up in 1955. This is based on grub counts in small diggings in southeastern area. (Raine).

SMALLER EUROPEAN ELM BARK BEETLE (*Scolytus multistriatus*) - KANSAS - Several large elms in northern Clay County heavily infested, March 18. (Matthew).

EUROPEAN ELM SCALE (*Gossyparia spuria*) - UTAH - Damagingly abundant on some elm trees at Fillmore and Salt Lake City. (Knowlton).

INSECTS AFFECTING MAN AND ANIMALS

HORN FLY (*Siphona irritans*) - SOUTH CAROLINA - Twenty to 25 per animal on beef cattle in Abbeville, March 14. First report for season. (Goodwin).

CATTLE GRUBS - UTAH - Numerous in some herds of cattle in Tooele, Weber, Utah and Juab Counties. Development of grubs slower in Weber County this year than in general. In Ogden Valley few appeared in backs of cattle until March 1. Often this has occurred 3 to 4 weeks earlier in this area. (Knowlton).

SHEEP SCAB MITE (*Psoroptes equi* v. *ovis*) - VIRGINIA - Severe on 18 head of sheep on one farm in Grayson County. (Simpson).

CATTLE LICE - MARYLAND - Heavily infesting 100 head of beef cattle in Baltimore County. (U. Md., Ent. Dept.).

POULTRY LICE - UTAH - Numerous in a number of farm flocks recently in northern area. (Knowlton).

RECENT IMPORTANT INTERCEPTIONS AT PORTS OF ENTRY

Living larvae of *Sesamia cretica* Led., the durra stem borer, were intercepted on several occasions recently in broomcorn in cargo from Greece at Baltimore, Maryland. (Stoops, Vinzant). This insect is considered an important pest of corn, broomcorn and sorghum in the Mediterranean area. It has been reported causing severe injury to these crops in Italy and Yugoslavia. Infestations as high as 90 percent have been reported in southern Italy. Attacked plants are weakened and the yield of seed and the sugar content are said to be reduced. Observations on the biology of the durra stem borer in Italy indicate it hibernates as a mature or nearly mature larva in the stalks of stored sorghum, broomcorn or corn. Adult emergence occurs in April and May. Eggs are deposited singly on the leaves or in small batches under the leaf sheaths. On hatching the larvae feed at first on the leaves then bore into the stalks or attack the ears. Pupation occurs usually in the stalks. Two generations a year have been reported in Italy. *S. cretica* is said to occur in Algeria, Anglo-Egyptian Sudan, Egypt, Ethiopia, France, Greece, Italy, Iraq, Morocco, Spain and Yugoslavia. It has been intercepted on numerous occasions in recent years in broomcorn from Europe. It is not known to occur in the United States. (Compiled-Plant Quarantine Branch).

LIGHT TRAP COLLECTIONS

		P. unipuncta	A. ypsilon	P. ornithog.	F. subterr.	P.margaritosa	H. armigera	A. malefida	Empoasca spp.
LOUISIANA									
St. Jos.	3/1-10	4	5	15	3	1		1	
Bat. Ro.	3/1-15	56	29	11	131	15			6 fabae
Tallulah	3/21-25	254	42	10	17	20	5	4	14
FLORIDA									
Belle Glade	2/4-3/1		3		1				
Sanford	2/4-3/4	8	17		45	1	2*		
MISS. (Counties)									
Coahoma	3/18-25	55	46	5		7			
Humphreys	"	292	80	1	7	1			
Oktibbeha	"	34	10			2			
Pearl R.	"	3			8	1	1		
Washington	"	126		1		21	2 (spp.)		
ARKANSAS									
Fayett.	3/21-25	25	9			16			
TENN. (Counties)									
Shelby	3/16-23	10	5			8			
Madison	"	18	4	3		3			
Lawrence	"	5	4	9		5			
Maury	"	23	12			6			
Robertson	"	1	1	3					
Cumberland	"	24	7			2			
Knox	"	1		5					
Green	"	2	2	9					
MD. (County)									
Montgomery	3/21-25					1			

*Also three _H. virescens_.

Other collections of importance include the following: FLORIDA - Belle Glade, *Diacrisia virginica* 9; Sanford, *Anisota rubicunda* 2, *Anticarsia gemmatilis* 1, *Trichoplusia ni* 56, *D. virginica* 6, *Herse cingulata* 2, *Hyphantria cunea* 3, *Laphygma frugiperda* 1, *Prodenia* spp. 20.

LOUISIANA - Baton Rouge, *Mocis* sp. 68, *Phyllophaga* spp. 40, *Euetheola rugiceps* 12; Tallulah, *Estigmene acrea* 3, *Laphygma exigua* 62, *Loxostege similalis* 11.

MISSISSIPPI - Humphreys and Pearl River Counties, *T. ni* 2; Washington County, *Caenurgina erechtea* 18.

TENNESSEE - *Agonoderus lecontei* 33, *C. erechtea* 77.

STORED-PRODUCT INSECTS

STORED-GRAIN INSECTS - VIRGINIA - Activity low through February on farms in southeastern counties. Expectations are that damage or activity will not be significant until about middle or last of May. (Davich).

BENEFICIAL INSECTS

A LADY BEETLE (*Coleomegilla maculata*) -ARIZONA - Increasing each time checked and giving good control of aphids on lettuce and alfalfa on 1200 acres at Hassayampa. (Ariz. Coop. Rept.).

MISCELLANEOUS INSECTS

CLUSTER FLY (*Pollenia rudis*) - PENNSYLVANIA - Very abundant in buildings in Elk, Warren and Venango Counties. (Adams).

OLD HOUSE BORER (*Hylotrupes bajulus*) - MARYLAND - Heavy infestation in rafters in home in Baltimore County. (U. Md., Ent. Dept.).

A RAT-TAILED MAGGOT - GEORGIA - Infesting red worm beds in Lumpkin, March 18. (Jordan).

ADDITIONAL NOTES

Citrus Pest Situation in Florida:

CITRUS RED MITE (*Metatetranychus citri*) activity increased in the second week of March to the highest level in the 5 years of record. During the third week of March 88 percent of the groves were infested.

There will probably be a reduction in activity on old leaves during the next 2 or 3 weeks as mites move to new foliage. Unless abundant rains occur, the situation will be severe through the post-bloom period. PURPLE SCALE (Lepidosaphes beckii) increased to a high level during second and third weeks of March. Leveling off of activity is anticipated, but infestations expected to be generally high in post-bloom period. FLORIDA RED SCALE (Chrysomphalus aonidum) increased to high level third week of March as peak of hatch was reached. SIX-SPOTTED MITE (Tetranychus sexmaculatus) infestations increased during second and third weeks of March and indications are that situation in April and May will be worse than in 1951. (Pratt, Thompson, Johnson).

OKLAHOMA - LICE abundant on cattle in western area particularly Kiowa County. YELLOW CLOVER APHID reported from southern area, particularly Pontotoc and Kiowa Counties. (Bower). Economic populations of latter species found in central area almost to Kansas border. HORN FLY present in small numbers in most parts of the State. (Howell).

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Weather Continued:
Temperatures for the week were below normal throughout the country. With the exception of the extreme southern tip of Florida and most of California where near normal temperatures persisted.

Precipitation was again widespread throughout the country, but the regions that were in greatest need received none or only very light amounts. The drought conditions in the lower Western Plains became worse, and California and the Gulf Coast regions reported that continued lack of precipitation in their areas was beginning to have an adverse effect on crops. Heaviest precipitation was centered again in Tennessee, but amounts of over 1 inch were reported in the Northeast, along the North Pacific Coast and in the Tampa region of central Florida.

Tornadoes were reported during the week in east central Ohio on the 22nd, and in northeastern Tennessee on the 26th. These storms caused only light damage. Estimates of damage from this week's storms have not been completed, but will run in the millions of dollars. Property damage in the Northeast due to the high winds on the 22nd, and freeze damage to fruit crops in the South and Southeast during the weekend accounts for the major portion of this amount. In addition, at least 65 deaths were attributed to the furies of the weather of the week. (Summary Supplied by U.S. Weather Bureau).

SOME OF THE MORE IMPORTANT INSECT PESTS FOR 1954

ARIZ.	Bollworm	Lygus bugs	Yellow clover aphid	Stink bugs	Thrips (on cotton)	Spider mites	Fall & Beet armyworm	Cutworms	Grass-hoppers	Salt-marsh caterpillar
ARK.	Bollworm	Boll weevil	Grasshoppers	Armyworm	Cutworms	Aphids	Bark beetles	Bean leaf beetle	Spider mites	Horn fly
DEL.	Corn earworm	Alfalfa weevil	Seed-corn maggot	Pea aphid	Corn sap beetle	Cabbage looper	European corn borer	Subterranean termite	Flower thrips	Strawberry spider mite
IND.	Termites	Cutworms	White grubs	Stored grain insects	Corn earworm	Aphids	Mites	Grasshoppers	Leaf-hoppers	Flies
MD.	Corn earworm	Alfalfa weevil	Pea aphid	Codling moth	Spittlebug	Mites	Cutworms	Cattle grubs	Ang. grain moth	Flea beetle
MASS.	Apple maggot	Aphids	Mites	Armyworm	Corn earworm	Spinach leaf miner	Gypsy moth	Japanese beetle	European earwig	Termites
MINN.	Armyworm	Grasshoppers	European corn borer	Mosquitoes	Potato leafhopper	Stable fly	House fly	Pea aphid	Granary weevil	Apple maggot
MONT.	Alfalfa weevil	Grasshoppers	Wheat stem sawfly	Wireworms	Cattle grubs	Cattle lice	Cutworms	Flea beetles	Lygus bugs	Mosquitoes
NEBR.	Grasshoppers	Corn earworm	Corn rootworm	European corn borer	Flies(house, stable & horn)	Cutworms & Armyworms	Garden webworm	Potato leafhopper	Wheat curl mite	White grubs
NEV.	Grasshoppers & Mormon cricket	Alfalfa weevil		Cattle grubs	Harvester ant	Lice (cattle & hog)	Horn fly	Termites	Elm leaf beetle	Thrips (onion & alfalfa)
N. J.	Two-spotted spider mite	Corn earworm	Potato leafhopper	Meadow spittlebug	Pea aphid	Codling moth	Seed-corn maggot	Cabbage looper	Eastern field wireworms	Plum curculio
N. C.	Corn earworm	Boll weevil	Tobacco hornworm	Termites	Rice weevil	House fly	Codling moth	Plum curculio	Southern corn rootworm	Mex. bean beetle
N. DAK.	Wireworms	Wheat stem sawfly	Colo. potato beetle	Armyworms	Mosquitoes & flies	European corn borer	Cattle lice	Sugar beet root maggot	Legume insects	Grass-hoppers
OHIO	European corn borer	Meadow spittlebug	Corn earworm	Clover root borer	Potato leafhopper	Pea aphid	Codling moth	Cat-facing insects	Plant bugs	Orchard mites
OREG.	Irrigated-land wireworms	Root weevils	Grasshoppers	Codling moth	Cherry fruit fly	Pear psylla	Green peach aphid	Common cattle grub	Spruce budworm	Douglas-fir beetle
R. I.	Aphids	Japanese beetle	House flies	Flea beetles	Leaf-hoppers	Corn earworm	Birch leaf-miner	Mosquitoes	Earwigs	Ticks
TENN.	Armyworms	Cutworms	Corn earworm	Tobacco budworm	Stored-grain insects	Grass-hoppers	Fall armyworm	Horn flies	House flies	Elm leaf beetle
TEX.	Bollworms	Grasshoppers	Boll weevils	Aphids	Rice weevils	Cutworms	Spider mites	Thrips	Armyworms	Plant bugs & Pink bollworm
UTAH	Alfalfa weevil	Grasshoppers	Aphids	Lygus bugs	Codling moth	Cutworms	Beet leafhopper	Corn earworm	Peach twig borer	Mites
VA.	Corn earworm	Termites	House fly	Rice weevil	Lice of domestic animals	Southern corn rootworm	Meadow spittlebug	Hornworms	Aphids	Spider mites
WASH.	Spider mites	Aphids	Codling moth	Lygus bugs	*Brachyrhinus* spp.	Cherry fruit fly	Flea beetles	Cutworms	Wireworms	Symphylids
WISC.	Corn earworm	Grasshoppers	European corn borer	Armyworms	Livestock flies Sarcopfagid fly (annoyance)	Potato leafhoppers	Meadow spittlebug	Apple maggot	White grubs	For. tent caterpillar
WYO.	Range grasshoppers	Horn flies	Alfalfa weevil	Cattle grubs	Cattle lice	Sheep ked	Mormon cricket	Mexican bean beetle	Beet leafhopper	Tarnished plant bug

These lists were submitted by the State Clearing offices after discussion and consultation with various entomologists.

SUMMARY OF INSECT CONDITIONS - 1954

KANSAS

Reported by D. L. Matthew, Jr.

Forage and Field Crop Insects:
EUROPEAN CORN BORER (Pyrausta nubilalis) infestations were lower in Kansas in 1954 than in either 1952-53. Heaviest infestations continue to be located in the lower Kansas River Valley and in the northeastern counties where Douglas and Jefferson Counties have slightly higher populations of overwintering larvae (November, 1954) than last year. With the exception of some small acreages of sweet corn, damage was not considered serious in 1954. SOUTHWESTERN CORN BORER (Diatraea grandiosella) populations showed a continued increase over previous years, and infestations of second-brood larvae were found in nearly all counties. No infestations were found in Doniphan and Atchison Counties of northeast Kansas; however, Brown County was a new distribution record for the year. Heavy damage occurred to both dryland and irrigated corn in central Kansas where stalk infestations ranged from 20 to 95 percent. Further loss was caused by the high percent of lodged stalks (16 to 60 percent) at time of harvest. GRASSHOPPERS (Melanoplus spp.) began to appear in southeastern Kansas during the third week in April and previously predicted outbreak proportions were apparent by May 1. (Results of the late summer and fall surveys made in 1953 accurately predicted the areas and intensity of grasshopper attack that were experienced in Kansas during 1954.) Continuous warnings of the need for control measures were released during May, June, and July. In some areas of eastern Kansas where control measures appeared inadequate or were not properly applied, widespread loss of corn, alfalfa, soybean, home garden, and other crops occurred. Many cornfields, already drought-stricken, were reduced to stubble, large areas of alfalfa were stripped, and trees in many orchards were defoliated. Counts of adults ranged as high as 40 to 60 per square yard.

Destructive populations continued until late fall during which time margins of fields of fall-seeded wheat and alfalfa fields were stripped. Adult counts and the fall egg surveys indicate potential infestations of outbreak proportions again in 1955 unless spring weather conditions and biological factors prove unfavorable.

WESTERN CORN ROOTWORM (*Diabrotica virgifera*) did not appear as abundant during 1954 as the previous year. Injury to corn, however, was severe in some localized areas in north central and northwestern Kansas with highs of 50 to 75 percent of stalks on the ground in a number of fields. In some fields, damage to silks and subsequent losses from poor pollination were the result of beetle feeding activity. Many acres of corn received very satisfactory protection against rootworms by soil application of insecticides in the spring at planting time; however, little spraying was done to control adult beetle populations. This species continued to be the most destructive of the three corn rootworms in Kansas. There did not appear to be much of an eastward spread of the insect in Kansas during 1954. (Burkhardt). NORTHERN CORN ROOTWORM (*D. longicornis*) was generally less abundant and less destructive during 1954 than in 1953. Light infestations were observed in northeastern and eastern Kansas with some overlapping with the western species in north central counties where considerable injury was recorded in Washington County. SOUTHERN CORN ROOTWORM (*D. undecimpunctata howardi*) was present in eastern and southeastern counties but was not considered much of a problem as the extreme drought conditions greatly overshadowed much insect damage. This species caused considerable lodging of stalks in a few localized areas of central Kansas where corn was grown under irrigation. CORN EARWORM (*Heliothis armigera*) moths and eggs were observed during second week in June and the resulting infestation was recorded as one of the heaviest on record. Earworm larvae, while abundant on corn in all stages of growth, also damaged and caused partial loss of sorghum and alfalfa crops. Over $2,000,000 loss of corn alone was recorded. Damage by this insect continued on late corn and sorghum crops, and moth flights were heavy until late fall when cold weather began.

FALL ARMYWORM (*Laphygma frugiperda*) appeared earlier than usual, by the last week in June, and was soon established throughout most of the State. Central Kansas cornfields suffered severe losses. Many young corn plants were destroyed by feeding in the whorl and by the later extensive stalk feeding. Control measures were required in several areas as population was higher than for several years. CORN BILLBUGS (*Calendra* spp.) were most destructive to corn planted in reclaimed river bottom land along the Missouri River in Doniphan and Wyandotte Counties in northeast Kansas. Several hundred acres required replanting, some three times before a satisfactory stand could be maintained. Another infestation, although minor, was observed in Cloud County.

CORN LEAF APHID (Rhopalosiphum maidis), while abundant in many corn and sorghum fields was particularly numerous in fields of north central counties. The most severe damage was to sorghums. Heavy populations in whorls prior to heading restricted proper head development and subsequent feeding caused a decreased number of properly filled kernels. Indirectly, a further loss was caused by the aphids as the honeydew apparently attracted many corn earworm moths. In general, greater numbers of corn earworm larvae were found on sorghum heads heavily infested with corn leaf aphids than on heads that were free of aphids. FALSE WIREWORM (Eleodes spp.) populations have gradually increased during the past three years and although numerous beetles were present in several areas of western Kansas during 1954, the only reported infestations of problem proportions occurred in some fields of Saline and Dickinson Counties. Several wheat fields in this area required seed treatment. WHITE GRUBS (Cyclocephala immaculata and Phyllophaga spp.) were not a state-wide problem; however, destructive infestations did occur in localized areas in Harvey, Ottawa, Saline, and Norton Counties. GREENBUG (Toxoptera graminum) infestations were very low in Kansas during the spring of 1954 and no infestations were observed or reported in the fall. Infestations that required control were found only in a few localized areas of Bourbon, Crawford, and Anderson Counties in southeast Kansas.

ENGLISH GRAIN APHID (Macrosiphum granarium) populations were light with only a slight build-up on wheat in a few fields of east central Kansas. No control measures were required as natural predators developed to control the infestations. CHINCH BUG (Blissus leucopterus) infestations were more prevalent during 1954 than in the two previous years. This general build-up of populations is probably the combined result of favorable weather conditions plus the increased acreages of sorghum and winter barley in the infested areas of eastern Kansas. A November survey of twenty-five counties in eastern Kansas showed high numbers of this insect in favorable overwintering habitats. Counts showed east central may expect light to severe populations in 1955. Elsewhere in State, counts were not generally considered of economic importance. ARMY CUTWORM (Chorizagrotis auxiliaris) feeding activity began in mid-February 1954 and continued to cause considerable damage to seedling alfalfa during March. Damage was extensive in fields of counties in central, northwest, north central, and northeast Kansas when no control measures were undertaken. Infestations in wheat and barley fields caused less over-all damage than those in alfalfa.

ARMYWORM (Pseudaletia unipuncta) developed into a serious outbreak beginning the third week of May in southeastern and east central Kansas, causing damage estimated in excess of $2,000,000 to barley, wheat, corn, and improved pastures. In barley fields, a large percentage of heads were clipped from the plants by the feeding larvae and losses of 40 to 60 percent were common. Natural predators and parasites of the armyworm were slow to develop and destruction of crops continued, where uncontrolled, until the second week of June. Many thousands of acres of small grains in eastern Kansas had to be sprayed for control. GARDEN WEBWORM (Loxostege similalis) infestations were unusual by the fact that infestations that generally affect only one cutting of alfalfa continued throughout the summer. Repeated control measures were required throughout many areas of central and eastern Kansas. In addition to the thousands of tons of alfalfa hay destroyed, many acres of young corn were destroyed and had to be replanted. PEA APHIDS (Macrosiphum pisi) began to appear in great numbers during the first week of April in southeast area. Within two weeks, this insect was abundant in nearly every county in the eastern two-thirds of the State. Many thousands of acres of alfalfa in the eastern Kansas area received aerial applications of insecticides. HESSIAN FLY (Phytophaga destructor) populations continued low throughout Kansas in 1954. Summer surveys showed low tiller infestations averaging 1-4 percent in a few counties of southeast and northwest Kansas. Drought conditions in infested areas favored very little growth of volunteer wheat to carry over fly populations until drilled wheat came up in late fall. Although hessian fly populations are low at present, the disregard of fly-free planting dates and the planting of some nonresistant wheat varieties offer the possibility of an increase in fly populations in the future. BROWN WHEAT MITE (Petrobia latens) infestations were found in the spring in several counties of the southwestern area and later developed further east than usual in localized areas of Saline and Dickinson Counties. Although summer eggs of the mites were present in several fields, no mite populations of any significance were observed in the fall of 1954.

Stored Grain Insects:
Several species of DERMESTIDS, primarily Trogoderma versicolor, but not khapra beetle, were more abundant in stored products in 1954 than any previous year during which observations of stored grain pests have been made. Populations of saw-toothed grain beetle, flat grain beetle, and weevils were low and showed no appreciable increase above the 1953 level; however, lesser grain borers have gradually increased the last three years. Flour beetles were more numerous than in 1953 and populations of Indian-meal moth showed an increase over both 1952 and 1953.

Shade Tree Insects:

SMALLER EUROPEAN ELM BARK BEETLE (*Scolytus multistriatus*) was found in greater abundance in in eastern Kansas than in previous years. The distribution of this insect in Kansas now extends, in the southern half of the State, as far west as Rush County; while in the northern half of the State, the beetles have been found as far west as Saline County. TWO-SPOTTED SPIDER MITE (*Tetranychus bimaculatus*), GRASSHOPPERS (*Melanoplus* spp.), and BAGWORMS (*Thyridopteryx ephemeraeformis*) were the three major pests of nurseries.

Livestock Insects:

SCREW-WORMS (*Callitroga hominivorax*) were reported from nearly every county although infestations were not severe. CATTLE GRUBS (*Hypoderma* spp.) began to show up in the backs of cattle about the first week of November and infestation levels in some counties were reported to be the heaviest in several years. HORSE FLY populations remained comparatively low during 1954 and showed no increase over the previous year. CATTLE LICE were abundant in a few counties; however, populations in general showed no increase over 1953 reports. HORN FLY (*Siphona irritans*) and STABLE FLY (*Stomoxys calcitrans*) were less abundant than 1953. HOUSE FLY (*Musca domestica*) populations remained at a high level.

Fruit and Orchard Insects:

GRASSHOPPER (*Melanoplus* spp.) infestations defoliated all or parts of apple and peach trees in some home and commercial orchards in eastern Kansas. TWO-SPOTTED SPIDER MITE was the most common of all mites affecting orchards in Kansas during 1954. Infestations continued in threatening proportions in some central orchards until fall. CODLING MOTHS (*Carpocapsa pomonella*) were not as easily controlled in 1954 as in previous years, and a moderate carry-over of larvae will provide a source of probably infestations for 1955 (Eshbaugh).

Household Insects:

CRICKETS and BOX ELDER BUGS (*Leptocoris trivittatus*) and CLOVER MITES (*Bryobia praetiosa*) were the most commonly reported household pests.

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